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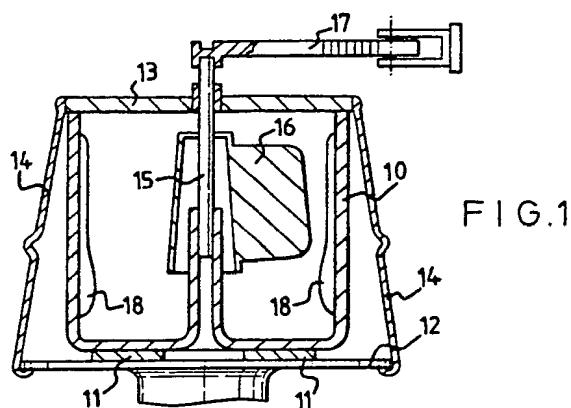
(56) Documents cited
GB 2159027 A EP 0312373 A1 WO 86/05658 A
US 4751357 A US 3891171 A

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H5H HMAX HMB HMHH HMT
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(54) Food stirrer for microwave oven

(57) A stirrer for use in a microwave oven with a turntable, has a stirring paddle 16 supported in a cooking utensil 10 by central bearings and a shaft 15 from which an arm 17 extends to engage a side of the oven. When the utensil is releasably secured onto the turntable 12, then rotated, the contents are stirred against the face of the paddle which is held stationary by the arm bearing against the oven wall. Clips 14 can hold the utensil 10 on the turntable.

The stirrer may be a paddle (30, Fig. 3) supported on an eccentric shaft coupled to a drive wheel (32) that bears against the inner surface of utensil 10 so that rotation of the utensil rotates the paddle.



GB 2 230 409 A

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1982.

1/1

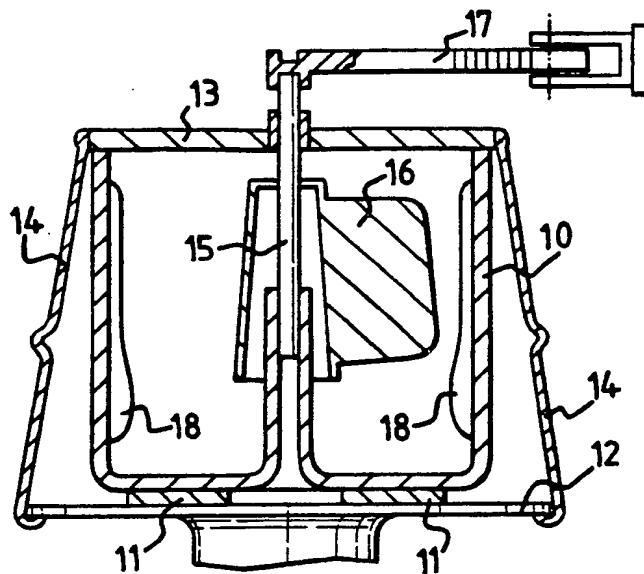


FIG. 1

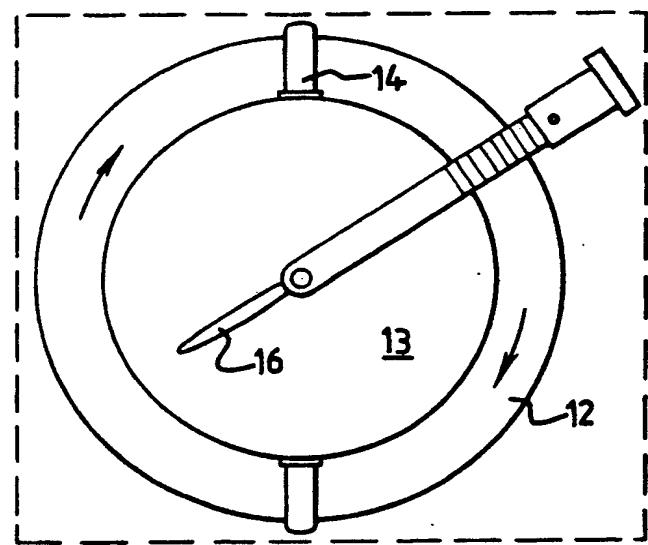


FIG. 2

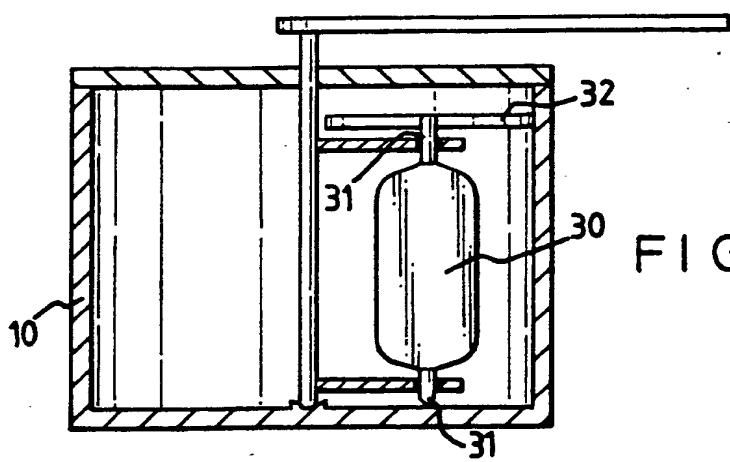


FIG. 3

"Stirrer"

The invention relates to microwave cookers.

The invention relates more particularly to microwave cookers having a turntable. The turntable provided in most microwave ovens rotates to move the items being cooked through microwave radiation. The items may be placed freely on the turntable or more usually held in a utensil which rides on the turntable. Although the movement of the items around and through the radiation field ensures or tends to ensure even heating, it never-the-less often happens that this is not the case or even if it is, the cooking is probably not completely even. In any event, it is useful to stir certain types of items during the cooking. At present stirring must be carried out manually and include interrupting the cooking and taking the items out of the oven.

According to the present invention there is provided a stirrer for a microwave oven having a turntable comprising a stirring means having a support to hold it in contact with material on the turntable to be stirred, and an arm connected to the stirring means extending to engage a side of the oven so that the stirring means is held stationary as the turntable rotates.

Embodiments of the invention will now be described by way of example with reference to the accompanying drawing in which:-

Fig. 1 is a sectional side elevation of the stirrer arrangement;

Fig. 2 is a top view of Fig. 1; and

Fig. 3 is a side elevation of another stirrer arrangement.

Referring to the drawing, a cooking pot 10 having pads 11 is supported on a conventional turntable 12 of a microwave oven (the outline of which is shown dotted in Fig. 2). A lid 13 is held firmly on the top of the pot 10 by two (or more) spring clips 14 which hook under the peripheral edge of the turntable 12. The lid 13 and a centrally formed recess provide bearings for a shaft 15 which carries a paddle 16. An adjustable arm 17 connected to the shaft 15 bears in use against one of the sides of the oven to hold the paddle 16 stationary when the pot 10 moves round with the turntable 12. As a result the contents of the pot are stirred during cooking in the microwave oven. The arm 17 is adjustable so that it can be extended or shortened for use in different sized microwave ovens.

The pot 10 has inwardly projecting fins 18 to assist in the flow of material in the pot during stirring and to tend to improve the evenness of the effect of the stirring. There may be more than one paddle mounted on the shaft 15. The paddle 16, or paddles, may be of are different shapes to increase or decrease the stirring effort or they may be interchanged or replaced by other forms of stirring means. For example open-latticed blades or whisk-type arrangements may be provided.

The arm 17 may be slidably adjustable and/or spring loaded. Further it is possible to arrange for the arm to spring automatically into position to cause the stirring to commence or cease after a time interval for example. In this way, for example the arm may extend only after a certain time so that stirring takes place only for the latter part of the cooking overall time, if desired. The arm may be driven or a spring operated to move the stirrer into position by steam released during the cooking.

In Fig. 3, the stirrer is in the form of a paddle 30 supported on a shaft between bearing 31 coupled to a drive wheel 32. The wheel 32 bears against the inner surface of the pot 10 so that as the pot rotates the paddle 30 is caused to rotate about the bearings 31 to stir the contents of the pot 10.

3

CLAIMS

1 A stirrer for a microwave oven having a turntable comprising a stirring means having a support to hold it in contact with material on the turntable to be stirred & an arm connected to the stirring means extending to engage a side of the oven so that the stirring means is held stationary as the turntable rotates.

2 A stirrer for a microwave oven having a turntable as claimed in Claim 1 wherein releasably securing means are provided to secure both stirrer & cooking utensil onto the turntable.

3 A stirrer for a microwave oven having a turntable as claimed in Claim 1 or Claim 2 wherein adjustable means are provided for the arm to enable operation in all sizes of microwave ovens.

4 A stirrer for a microwave oven having a turntable as claimed in Claim 2 or Claim 3 wherein means are provided to spring the arm automatically into position to cause stirring operation to commence or cease.

5 A stirrer for a microwave oven having a turntable as claimed in Claim 3 or Claim 4 wherein the automatic positioning of the arm is provided by heat expansion.

6 A stirrer for a microwave oven having a turntable as claimed in any preceding claim wherein one or more interchangable stirring means are provided.

7 A stirrer for a microwave oven having a turntable as claimed in Claim 6 wherein one or more whisk-type arrangements are provided to the stirring means.

8 A stirrer for a microwave oven having a turntable as claimed in Claim 6 or Claim 7 wherein one or more whisk-type arrangements are provided with drive means of a wheel bearing against a part of the rotating utensil.

9 A stirrer for a microwave oven having a turntable substantially as described herein with reference to figures I-3 of the accompanying drawing.

